TECHNICAL REVIEW DOCUMENT
For
RENEWAL OF OPERATING PERMIT 95OPWE020

DCP Midstream, LP – Marla Compressor Station
Weld County
Source ID 1230243

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I. Purpose

This document establishes the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewed Operating Permit for the Marla Compressor Station. The previous Operating Permit for this facility was issued on May 1, 2007 and expired on May 1, 2012. However, since a timely and complete renewal application was submitted, under Colorado Regulation No. 3, Part C, Section IV.C all of the terms and conditions of the existing permit shall not expire until the renewal operating permit is issued and any previously extended permit shield continues in full force and operation.

This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the renewal application submitted on April 28, 2011, additional information submitted on July 29, 2008, August 7, 2009, April 1, 2010, April 12, 2010, April 28, 2011, and May 11, 2011, previous inspection reports, and various email correspondence with the applicant. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at http://www.cdphe.state.co.us/ap/Titlev.html. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

II. Description of Source

The Marla Compressor Station uses six (6) gas-fired internal combustion engines to drive compressors to transmit natural gas gathered from gas field laterals to a primary pipeline. These engines are controlled through non-selective catalytic reduction (NSCR).

The station also includes two (2) triethylene glycol dehydrator units that contact "dry" triethylene glycol with the natural gas stream to remove moisture. The "wet" glycol mixture is regenerated in a still for reuse in the process. These units are equipped with a condenser and flare for VOC control.

The plant is located west of the intersection of Weld County Road (WCR) 55 and WCR 40 on the north side of WCR 40, approximately 13 miles southeast of Greeley. This facility is located in an Area classified as attainment for all pollutants except ozone. It is classified as non-attainment for ozone and is part of the 8-hr Ozone Control Area as defined in Regulation No. 7, Section II.A.1.

This facility is categorized as a NANSR major stationary source (Potential to Emit of VOC and $NO_X \geq$ 100 Tons/Year). Future modifications at this facility resulting in a significant net emissions increase (see Reg 3, Part D, Sections II.A.26 and 42) for VOC or NO_X or a modification which is major by itself (i.e. a Potential to Emit of $\geq$ 100 TPY of either VOC or NO_X) may result in the application of the NANSR review requirements.

Based on the information provided by the applicant, this source is categorized as a minor stationary source for PSD as of the issue date of this permit. Any future modification which is major by itself (Potential to Emit of $\geq$ 250 TPY) for any pollutant listed in Regulation No. 3, Part D, Section II.A.42 for which the area is in attainment or attainment/maintenance may result in the application of the PSD review requirements.

Emissions (in tons/yr) at the facility are as follows:

	POTENTIAL TO EMIT (TONS/YEAR)		
	NO_X	CO	VOC
One Waukesha 7042 GSI 1478 HP Engine	42.8	42.8	14.3
One Waukesha 7042 GSI 1478 HP Engine	28.5	42.8	14.3
One Waukesha 7042 GSI 1478 HP Engine	14.3	28.5	10.0
Three Waukesha 7044 GSI 1680 HP Engines	97.2	97.2	48.6
Two TEG Dehydrators			5.6
Fugitive Emissions			36.0
Insignificant Activities	1.2	2.2	2.2
Totals	184.2	213.7	131.0

	HAP EMISSIONS (LB PER YEAR)					
	HCHO	Acetaldehyde	Benzene	Acrolein	Toluene	Total (tpy)
One Waukesha 7042 GSI 1478 HP Engine	498.8	141.4	80.1	133.3		0.43
One Waukesha 7042 GSI 1478 HP Engine	498.8	141.4	80.1	133.3		0.43
One Waukesha 7042 GSI 1478 HP Engine	498.8	141.4	80.1	133.3		0.43
Three Waukesha 7044 GSI 1680 HP Engines	1707.3	484.2	274.2	456.3		1.46
Two TEG Dehydrators			1240.0		2040.0	1.64
Totals (tpy)	1.60	0.45	0.88	0.43	1.02	4.38

Applicable Requirements

NSPS Subpart KKK

The requirements of 40 CFR Part 60 Subpart KKK apply to VOC emissions from equipment leaks at onshore natural gas processing plants. The fuel conditioning skid unit previously at this facility has been disconnected and is now out of service.

NSPS Subpart JJJJ

All engines at this facility were manufactured prior to the applicability date of NSPS Subpart JJJJ and are therefore not subject to its provisions.

NESHAP Subpart HH

The final rule for 40 CFR Part 63 Subpart HH was revised on January 3, 2007 to address area sources for HAPs. An affected source under this subpart includes each triethylene glycol (TEG) dehydration unit located at a facility that processes hydrocarbon liquids. Marla has two TEG dehydrators that are subject to the area source provisions of Subpart HH. Glycol dehydrators with actual benzene emissions less than 1984 lb/year or actual annual average gas flowrate less than 3 MMscf/day are exempt from the requirement of Subpart HH with exception of recordkeeping. The dehydrations units at the facility currently qualify for this exemption, as such, the exemption criterion were included in the operating permit.

NESHAP Subpart ZZZZ

Subpart ZZZZ, also known as the RICE MACT, applies to both new and existing engines of all size located at area sources of HAPs. Under the rule, engines located at area sources are considered existing if construction commenced prior to June 12, 2006. All engines commenced construction prior to June 12, 2006 and are considered existing. These existing engines are subject to emission standards for formaldehyde.

Regulation No. 7

Engines

Since the last issuance of the operating permit, new Reg 7 rules have come into effect. The engines are now subject to Section XVII which includes state-wide control requirements and emissions standards. Engines C-148, C-166, C-174, and C-176 are considered existing engines and are required to install controls pursuant to Section XVII.E.3.b.(i). This state only requirement has been streamlined from the permit, as the engines are also subject to the control requirements in Section XVI. Engines C-135 and C-151 are replacement units that have been relocated from outside the state of Colorado and are therefore subject to the emission standards for new engines constructed after July 1, 2007 but prior to July 1, 2010, which are 2.0 g/hp-hr for NO_X, 4.0 g/hp-hr for CO, and 1.0 g/hp-hr for VOC. These emission standards are embedded in the annual emission limitations of these engines and therefore the standards have been streamlined from the permit. Each of the engines subject to these standards has demonstrated compliance during a performance test.

While Reg 7 Section XVII.B.4 exempts units that are subject to NSPS or MACT control requirements from the provisions of Section XVII.E, the engines at this facility are not required to comply with the MACT Subpart ZZZZ limitations until October 19, 2013. Until the MACT requirements become effective the engines are subject the requirements in Reg 7, Section XVII.E as discussed above.

Dehydration Units

The glycol dehydrator control requirements listed in the first renewal permit incorrectly cited requirement for condensate storage tanks. The dehydrators are subject to the ozone nonattainment area requirements to control VOC emissions in Reg 7 Section XII.H. The dehydrators are also subject to similar state-only statewide requirements to control emissions in Section XVII.D. Since the SIP-approved XII requirements are federally enforceable, the state-only requirement to control VOC emissions from XVII was streamlined from the permit. Section XVII includes additional requirements regarding the operation and maintenance of the dehydration units. These conditions have been included in the body of the operating permit.

Flare

The first renewal operating permit included 20%/30% opacity standards for the combustion device controlling the dehydration units from Colorado Regulation No. 1, Section II.A.1 and II.A.4. The combustion of waste gases is excepted from the Reg 1, Section II.A.1 requirements and subject to a 30% standard in Section II.A.5 of Reg 1. However, Reg 7 Section XVII requires no visible emission for control devices used to comply with the XVII control requirements. The more stringent requirements from Reg

7, Section XVII were included in the specific conditions of the operating permit and the Reg 1 30% standard was added to the streamlined conditions in Section III of the operating permit.

Greenhouse Gases

The potential greenhouse gas emissions at this facility are less than 100,000 TPY CO_2e. Future modifications at this facility that exceed 100,000 TPY CO_2e may be subject to regulation.

Source Determination

With this permit action, the Division revisited the source determination in regards to natural gas operations in the area surrounding the Marla facility to verify that the proper pollutant emitting activities are included in this permit as part of the Marla Compressor Station facility. DCP did not identify any other pollutant emitting activities in the Marla vicinity that are dependent upon the Marla Compressor Station to maintain operation. The Division considers the current determination for the facility to be accurate.

III. Discussion of Modifications Made

Source Requested Modifications

The renewal application and additional information received requested the following modifications:

Modification Application on July 29, 2008

- Revise the emission limits for two fugitive VOC sources (P106 and P114) to account for piping configuration changes.

Modification Application on August 7, 2009

- Combine two fugitive VOC sources (P106 and P114) into one point (under P106).
- Revise emission limit for single fugitive VOC source based on most recent gas analysis and component count.

Modification Application on April 1, 2010

- Replace the CAM plan language for a thermocouple with a flame monitoring system.

Modification Application on April 12, 2010

- Remove monthly limits from dehydrators (P112 and P113).
- Adjust glycol recirculation rate limits to 6.25 gallons per minute for both dehydration units.
- Adjust annual emission limits to 2.82 tons per year for each dehydrator.

Modification Application on April 28, 2011

- Revise the natural gas heating value and brake specific fuel consumption for each of the engines.
- Include new fuel consumption limitations and emission factors for the engines as provided with the application.

Renewal Application on April 28, 2011

- Incorporate past modification requests.
- Incorporate two AOS executions for which the replacement engines are now subject to the emissions standards in Regulation No. 7.

Renewal Application Revisions on May 11, 2011

- Revise reboiler ratings, which were listed incorrectly on the renewal application.
- Revise the reported facility-wide emissions to correct a calculation error.
- Revise the insignificant activities emission calculation spreadsheet that was submitted with the renewal application.

The source's requested modifications were addressed as follows:

Page following cover page

- Updated the responsible official and permit contact information in accordance with the renewal application.

Section I – General Activities and Summary

- Updated the engine's serial numbers in the summary of emission units in Condition 6 in accordance with AOS executions and to correct an error.

Section II – Specific Permit Terms

- The two fugitive emission sources were combined into one point and the emission limitation increased as requested.
- The monthly emission limits for the dehys were removed. The annual emission limitation and glycol recirculation rate limit were adjusted as requested. The combined emissions from both dehydrators were unchanged.
- The annual natural gas consumption limitations for the engines were adjusted as requested.

Appendices

- The dehydrator CAM plan language for monitoring the presence of a flame was changed to accommodate alternative monitoring systems.

Other Modifications

In addition to the source requested modifications, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal. These changes are as follows:

Section I – General Activities and Summary

- Added dehydrator permit 05WE0579 to Condition 1.3.
- Revised the language in Condition 1.4 include current conditions that are state-only enforceable.
- Updated the AOS in Condition 2 with the most current version (10/12/2012). The applicability reports for engine replacement were also included in Appendix J. Note the AOS cannot be used for permanent replacement of engines with permitted emissions limits above the NANSR significance level.
- Updated Condition 3.1 (status of source with respect to PSD requirements) to reflect Division's current standard language and current Regulation No. 3 citations.

Section II – Specific Permit Terms

- Replaced the requirement to record fuel consumption within seven days with language specifying natural gas consumption shall be recorded monthly. This language is consistent with other recently issued DCP permits. A requirement to record on a monthly basis the hours of operation for each engine was also added to the permit. This parameter is necessary to allocate natural gas consumption for each engine and calculate emissions. To accurately determine natural gas consumption, it is essential that the hours of operation and total plant fuel usage be recorded on the same day.
- The opacity requirement language for the engines was modified to more closely reflect the underlying construction permit and Reg 1 requirements.
- The engine and dehy requirements to follow an external O&M plan were removed from the permit. The appropriate conditions from the plan were incorporated into the permit.
- Added the NESHAP Subpart ZZZZ and Subpart A requirements to the engine conditions.
- Removed insignificant activity tracking since NO_X is now major due to the nonattainment designation and CO is no longer within 10% of the PSD threshold.
- The requirement to conduct a compliance test on the dehydrators was removed from the operating permit, as the one-time test has already been conducted.

- The Reg 7 control requirements listed in the permit have been altered. The original requirements listed in the permit were inaccurate. Additionally, the less stringent requirements from Reg 7 Section XVII have been streamlined from the permit, as discussed above.
- The NESHAP Subpart HH area source requirements were added to the permit.
- The opacity standard for the flare used to control the glycol dehydration units was corrected, as discussed above.

Section III – Permit Shield

- Applicable requirements were removed from the permit shield.

Section IV – General Permit Conditions

- Updated the general permit conditions to the current version (5/22/2012).